

Financial Literacy and Fintech Use's Effects on Indonesian Young Adults' Financial Well-Being: Financial Behavior as a Mediation Variable

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Abstract

Using financial behavior as a mediating variable, this study examines the relationship between financial literacy and fintech use and financial well-being in Indonesia's emerging adult population. In order to test this study, 444 respondents who fit the criteria for the emerging adulthood age group completed an online questionnaire. The study's findings indicate that financial literacy has a negligible and detrimental impact on financial well-being; however, if financial behavior acts as an indirect mediator, the effects will be substantial and favorable. Fintech use also makes a substantial contribution to the enhancement of financial well-being, particularly through the direct and indirect mediation of financial behavior. These findings provide practical recommendations for the government, financial institutions or fintech and emerging adulthood service providers to improve Financial Literacy, build awareness of the wise use of fintech, and emphasize the importance of having positive financial behavior among the young generation in Indonesia, in order to achieve financial well-being that is expected in the future.

Keywords: *Financial Literacy, Fintech, Financial Well Being, Financial Behavior, Emerging Adulthood, PLS-SEM.*

Introduction

The emergence of financial technology, or Fintech, has fundamentally altered how people handle their money in the current digital age. The emerging adult age group (18–29 years old), which is moving from financial reliance on parents to economic independence, is affected by this shift. In Indonesia, users spend an average of 6.05 hours a day on their mobile devices. Nevertheless, the report also highlights a disheartening finding: with 222 million downloads, the personal loan application—also known as the *pinjol* application (Online Loan)—is the most downloaded app in Indonesia [1], a figure that is quite competitive with around 278.8 million people in Indonesia today.

Fintech provides wide and large convenience and accessibility, but not all individuals can take advantage of it optimally. This is often caused by the rendant *financial literacy*, which includes an understanding of financial management, investment and risk (Mansoor et al., 2022). On the OJK Web page, the message conveyed that students from an early age must learn and understand the financial products they will use, based on the results of the National Survey on Financial Literacy and Inclusion conducted by the OJK in 2022 shows that the financial literacy index of the Indonesian people is 49.68 percent, up from 38.03 percent in 2019[2].

Based on the author's experience in the banking sector, many individuals, especially in the age group *Emerging Adulthood* face challenges in managing their finances even though they have easier access to various technology-based financial services. This phenomenon raises questions about the importance of how *financial literacy* and use *Fintech* can directly or indirectly affect *financial well-being*. Then one of the key factors in connecting these things is *Financial behavior* which serves as a link between influences *financial literacy* and use *Fintech* towards *financial well-being*. Good financial behavior, such as budget planning, expenditure control and debt management is believed to improve *Financial well-being* Even in the midst of various economic challenges. Apart from good financial planning, we also find a phenomenon in Indonesia such as, there is a surprising fact that people are at the age of 65, among which 50% of them are still dependent on others, 36% of people are still working when or before reaching the age of 65 years and 9% are still working [3].

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This research has its own challenges, especially if it is carried out in a developing country such as Indonesia, apart from the level of *literacy* which is not so high at age *Emerging Adulthood*. In Indonesia, this group also has a large population, the current emerging adulthood age will also be one of the supporters of the creation of the dream of becoming a Golden Indonesia in 2045. Based on the background of the author's experience and existing information, the author took the initiative to conduct this research. It is hoped that this research can help emerging adulthood realize the importance of having *Financial behavior* which is good for the creation of *Financial well-being*, this is ideally created with sufficient knowledge and the use of the application *Fintech* which is true. In addition, this research is also expected to be one of the sources of literature for anyone who wants to do more or less the same research. This research is also expected to be able to find the best advice for the government, financial institutions or service providers *Fintech* and *Emerging Adulthood* in Indonesia, in order to formulate regulations, procedures for use, appropriate financial knowledge and review the purpose of use *Fintech* for *Emerging Adulthood* or the general public.

Literature Review

Financial Literacy

According to Mishara (2019), financial literacy can be enhanced and supported by finance-based education or training that gives participants information and direction to help them become more empowered financial managers. Financial literacy, broadly speaking, refers to the knowledge and comprehension of how money is created, spent, and stored as well as the aptitude and capacity to use financial resources in decision-making. Among these choices are how to create, invest, spend, and save [4]. There are 4 categories to measure financial literacy; 1. Knowledge of financial concepts, 2. Ability to manage personal finances, 3. Skills in making Financial Decisions, 4. Confidence in Future Financial Planning

Fintech (Financial Technology)

Fintech aims to make the most of contemporary technology in areas like asset collection, loans, transfers, payment methods, and financial management, including swiftly and succinctly accelerating financial services (Maulida, 2019). Fintech has the advantage of being one of the more open and democratic funding options. Financial technology, or Fintech, comes in the following varieties: 1. Peer-to-peer lending, 2. Digital payments, and 3. Crowdfunding 4. Investments, 5. Insurance, and 6. Online banks.

Perception of ease of use is a measure where one believes that in using a technology it can be clearly used and does not require much effort but must be easy to use and easy to operate (Jogiyanto, 2019; 934). *The following indicators can measure the Use of Fintech*: 1. Easy to Learn, 2. Controllable, 3. Flexible, 4. Easy to use, 5. Clear and Undersandable.

Financial Behavior

Financial Behavior has undergone significant developments in the last decade. *Financial Behavior* research is research that is not only related to finance but multidisciplinary also contributes to this research such as economics, sociology and psychology (Netmeyer et.al., 2018). There are 5 dimensions of *Financial Behavior* (Hasibuan et.al., 2018), namely: 1. Monitoring financial management, 2. Paying bills on time, 3. Allowance for savings and investments, 4. Unexpected expenses, 5. Evaluation of financial managers.

Financial Well-being

Financial well-being is attained when an individual can fulfill present and future financial obligations and needs, feel secure about their financial future, and make choices that enable them to enjoy life, according to the Consumer Financial Protection Bureau (CFPB, 2015). Because it can characterize people's quality of life with all the associated factors that influence it, this research on financial well-being is significant. According to studies by Sornte and Lanz (2019) and Netmeyer et al. (2018), financial well-being has the following aspects: 1. *Subjective Financial Well-being*, 2. *Money Management*, 3. *Peer Comparison*, 4. *Having Money*, 5. *Financial Future*.

The following are the hypotheses we have for this study:

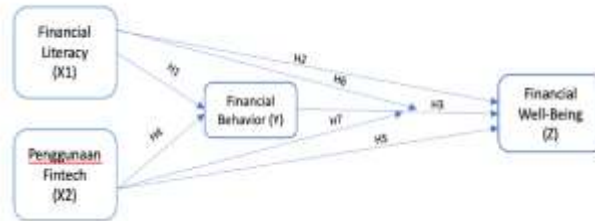


Figure 1. Hypothesis

Based on the picture above, the following are the hypotheses of this study.

H1: There is a positive and significant influence between *financial literacy* and *financial behavior* on *emerging adulthood* in Indonesia.

H2: There is a positive and significant influence of *financial literacy* on *financial well-being* in *emerging adulthood* in Indonesia.

H3: There is a positive and significant relationship between *financial behavior* and *financial well-being* in *emerging adulthood* in Indonesia.

H4 : There is a positive and significant relationship between the use of *Fintech* and *Financial Behavior*

H5: There is a positive and significant relationship with the use of *Fintech* on *financial well-being* in *emerging adulthood* in Indonesia.

H6: There is a positive and significant relationship between *Financial Literacy* and *Financial well-being* *emerging adulthood* in Indonesia mediated by *financial behavior*.

H7: There is a positive and significant relationship between the use of *Fintech* and *financial well-being* *emerging adulthood* in Indonesia mediated by *financial behavior*.

Methodology

In this study, the researcher used quantitative data processing, by measuring the variables *Financial Literacy-X1 (FL)*, *Fintech-X2 (FB) Use*, *Financial Behavior-Y (FB)* and *Financial well-being Z (FWB)*. This quantitative research uses a survey method with the distribution of questionnaires, through google forms and disseminated through whatsapp and Instagram groups. The data collected through the questionnaire was processed using SMART PLS 4 software so that data analysis was obtained that could answer the hypothesis in this study. In this study, the questions on the questionnaire used an ordinal scale (Likert) and used the lamshow formula as a guide in determining what the minimum number of questionnaire collections was:

$$n = \frac{Z^2 \cdot P \cdot (1-P)}{d^2}$$

There is a guideline that the minimum number of questionnaire fillers is 385 respondents.

Result

In the study, questionnaires were distributed through social media, in about 1 month. Starting from September 1, 2024 to October 2, 2024. In this study, the author managed to collect 444 respondents with the following results:

- Respondents with female gender dominated the filling with a percentage of 73.8%
- Respondents aged 27 – 29 years dominated the questionnaire filling with a percentage of 50.6%.
- Respondents with unmarried status dominated the questionnaire filling with a percentage of 66.1%.
- Respondents with private employee jobs dominated the questionnaire filling with a percentage of 52.7%.
- Respondents with an income of 1-5 million dominated the filling of the questionnaire with a percentage of 78.8%.
- Respondents domiciled in North Sumatra dominated the questionnaire filling with a percentage of 24.8%.
- Respondents with active fintech users dominated the questionnaire filling with a percentage of 33.7%.
- Respondents who are close to the location of financial institutions dominate the filling of the questionnaire with a percentage of 65.2%.

Measurement (Outer) Model

Construct validity with convergent validity (loading factor) and discriminant validity (cross loading) is used in validity tests in SEM. The AVE value in table 1 is considered valid if it has a value of > 0.5 (Ghozali; 2021) 3 variables show a value above 0.5 and 1 variable shows a value below 0.5. Then it can be seen in table II that all cross loading values have a value of more than 0.5.

Table I. Convergent Validity

Variabel	AVE	Nilai Kritis	Evaluasi Model
<i>Financial Literacy (X1)</i>	0,411	>0,5	Tidak Valid
<i>Financial Behavior (Y)</i>	0,543		Valid
<i>Financial Well-Being (Z)</i>	0,512		Valid
<i>Penggunaan Fintech (X2)</i>	0,507		Valid

So based on table I., an AVE value of less than 0.5 was produced in 1 invalid variable, namely *Financial Literacy (X1)*, and a value above 0.5 in 3 other variables, namely *Fintech Use (X2)*, *Financial Behavior (Y)*, *Financial Well-being (Z)* got a valid value.

Table II. Cross Loading

Indikator	Financial Behavior (Y)	Financial Literacy (X1)	Financial Well-Being (Z)	Penggunaan Fintech (X2)
BL1	0,100	0,650	0,100	0,114
BL2	0,207	0,600	0,107	0,401
BL3	0,174	0,611	0,140	0,201
BL4	0,441	0,640	0,100	0,271
BL5	0,107	0,700	0,400	0,100
BL6	0,100	0,700	0,400	0,100
BL7	0,400	0,600	0,100	0,100
BL8	0,407	0,600	0,107	0,100
BL9	0,100	0,600	0,100	0,101
BL10	0,441	0,101	0,100	0,611
BL11	0,401	0,100	0,100	0,700
BL12	0,421	0,110	0,400	0,600
BL13	0,101	0,100	0,100	0,610
BL14	0,411	0,101	0,100	0,601
BL15	0,101	0,100	0,101	0,701
BL16	0,407	0,111	0,100	0,700
BL17	0,610	0,407	0,100	0,101
BL18	0,101	0,111	0,101	0,100
BL19	0,611	0,421	0,107	0,100
BL20	0,610	0,400	0,407	0,101
BL21	0,610	0,101	0,101	0,101
BL22	0,610	0,101	0,101	0,101
BL23	0,610	0,101	0,101	0,101
BL24	0,610	0,101	0,101	0,101
BL25	0,610	0,101	0,101	0,101
BL26	0,610	0,101	0,101	0,101
BL27	0,610	0,101	0,101	0,101
BL28	0,610	0,101	0,101	0,101
BL29	0,610	0,101	0,101	0,101
BL30	0,610	0,101	0,101	0,101
BL31	0,610	0,101	0,101	0,101
BL32	0,610	0,101	0,101	0,101
BL33	0,610	0,101	0,101	0,101
BL34	0,610	0,101	0,101	0,101
BL35	0,610	0,101	0,101	0,101
BL36	0,610	0,101	0,101	0,101
BL37	0,610	0,101	0,101	0,101
BL38	0,610	0,101	0,101	0,101
BL39	0,610	0,101	0,101	0,101
BL40	0,610	0,101	0,101	0,101
BL41	0,610	0,101	0,101	0,101
BL42	0,610	0,101	0,101	0,101
BL43	0,610	0,101	0,101	0,101
BL44	0,610	0,101	0,101	0,101
BL45	0,610	0,101	0,101	0,101
BL46	0,610	0,101	0,101	0,101
BL47	0,610	0,101	0,101	0,101
BL48	0,610	0,101	0,101	0,101
BL49	0,610	0,101	0,101	0,101
BL50	0,610	0,101	0,101	0,101

Table II explains that the *cross loading* value in this study is dominated by a value of 0.5. The cross loading value can be said to be eligible if it has a value of more than 0.5 for each variable. The cross loading test data (bold value) shows that the correlation value of the indicator to the construct is more than 0.5 and higher than the correlation value of other constructs. This shows that the measurement model has met the requirements for the validity of discrimination. The purpose of the *cross loading* test is to give an idea that the loading value of the indicator accurately shows a correlation to the construct and is higher when compared to the correlation to the construct and higher when compared to the correlation to other constructs.

Table III. Fornell-Larcker

Indikator	Financial Literacy (X1)	Financial Behavior (Y)	Financial Well-Being (Z)	Penggunaan Fintech (X2)
Financial Behavior (Y)	0,737			
Financial Literacy (X1)	0,724	0,641		
Financial Well-Being (Z)	0,701	0,565	0,716	
Penggunaan Fintech (X2)	0,660	0,529	0,480	0,712

Table III explains that based on the value of Foenell-Larcker, it is stated that *financial literacy* has a value less than the square value of AVE, so that the *financial literacy variable* (X1) shows invalid results, the use of *fintech* (X2) shows valid results, *financial behavior* (Y) shows valid results and *financial well-being* shows valid results (Z).

Table Iv. Reliability

Variabel	Composite Reliability	Nilai Kritis	Cronbach Alpha	Nilai Kritis	Evaluasi Model
Financial Literacy (X1)	0,911	>0,7	0,794	>0,5	Reliabel
Financial Behavior (Y)	0,805		0,904		Reliabel
Financial Well-Being	0,897		0,880		Reliabel
Pengguna Fintech (X2)	0,873		0,861		Reliabel

Table IV explains that the *composite reliability* and *cornbach alpha* values show that the values of each variable have shown acceptable and reliable results. The *composite reliability* value is >0.7 and the *cornbach alpha* value is >0.5 . With *composite reliability values* of 0.911 (X1), 0.805 (Y), 0.897 (Z) and 0.873 (X2). then *Cornbach alpha* with values of 0.794 (X1), 0.904 (Y), 0.880 (Z) and 0.861 (X2).

Structural (Inner) Model

R-Square

Table V. R-Square

Variabel	R Square
Financial Well-Being (Z)	0,511
Financial Behavior (Y)	0,630

The purpose of testing *R-Square* is to statistically measure how well independent variables explain the variation of dependent variables. According to (Chin, 1998) it is explained that the value of the R-square is categorized: Strong <0.67 , Moderate between <0.33 and Weak <0.19 . The R-Square value that tested the Financial Well-being (Z) variable was 0.511 (51.1%) with moderate results and the R-square value that tested the Financial behavior (Y) variable was 0.630 (63.0%) with strong results. The higher the R-Square value, the greater the ability of the exogenous construct to explain endogenous variables so that the better the structural equation is formed.

Q-Square

Q-Square has the main goal of assessing the predictive relevance of the structure model, meaning that Q-Square is used to see if the independent variables in the model are able to adequately predict dependent variables.

Table VI. Q-Square (Predictive Relevance)

Variabel	Q Square	Keterangan
Financial Well-Being (Z)	0,342	Moderat
Financial Behavior (Y)	0,620	Kuat

Based on Table VI, the *q-square* results show that the *Financial Well-Being* variable (z) has a value of 0.342 with moderate relevance, while *Financial Behavior* (Y) has a value of 0.620 has a strong result value. These results show that *the value of q-square in financial behavior is greater than financial well-being*. The following results indicate that *financial behavior* plays a significant role in influencing *financial well-being*.

Table VII. Path Coefficient

Refers to the value of *Path Coefficients*, which reflects how much relationship or influence latent constructs have in a study. Testing is done using the *bootstrapping method*. The parameters for knowing *F Square* are 0.02, 0.15, and 0.35 which indicates that each route relationship in the model has small, medium, and large effect sizes

Variabel	F Square	Keterangan
<i>Financial Literacy (X1) > Financial Behavior (Y)</i>	0,526	Besar
<i>Financial Literacy (X1) > Financial Well-being (Z)</i>	0,012	Kecil
<i>Financial Behavior (Y) > Financial well-being (Z)</i>	0,290	Moderat
<i>Penggunaan Fintech (X2) > Financial Behavior (Y)</i>	0,288	Moderat
<i>Penggunaan Fintech (X2) > Financial Well-being (Z)</i>	0,000	Kecil
<i>Financial Literacy (X1) x Financial Behavior (Y) > Financial Well-Being</i>	0,018	Kecil
<i>Penggunaan Fintech (X2) x Financial Behavior (Y) > Financial Well-being (Z)</i>	0,021	Kecil

Based on the results of the value of *the f-square* contained in the table above, it shows that each variable has a different influence on the other variables. The value generated from *this f-square* is dominated by small values. The big influence on *the f-square* results is generated from the variables of *financial behavior* on *financial well-being*.

Table VIII. Hypothesis Test

Hipotesis	Original Sample (O)	Sample Mean (M)	Standard Deviaton (STDEV)	T-Statistics (OSTDEV)	P Values	Keterangan
H1 FL (X1) > FB (Y)	0,520	0,520	0,041	12,538	0,00	Diterima
H2 FL (X1) > FWB (Z)	0,436	0,435	0,054	8,137	0,00	Diterima
H3 FB (Y) > FWB (Z)	0,625	0,620	0,067	9,385	0,00	Diterima
H4 PF (X2) > FB (Y)	0,385	0,386	0,041	9,429	0,00	Diterima
H5 PF (X2) > FWB (Z)	0,253	0,259	0,058	4,391	0,00	Diterima
H6 FL x FB > FWB	-0,093	-0,087	0,049	1,904	0,057	Ditolak
H7 PF x FB > FWB	0,095	0,090	0,044	2,136	0,033	Diterima

Based on the results of the Hypothesis Test in this study, there is 1 hypothesis that is unacceptable because of the P-Values and T-Statistic values

The following are the overall hypothesis test values in this study, to measure the hypothesis test along with the values that must be met, the P-Values must be <0 and T-Statistic >1.96 , and the following are the hypothesis test values this time:

H1. FL (X1) > FB (Y) P-values <0.5 (0) and T-Statistic values >1.96 (12.538) hypothesis **Accepted**

H2. FL (X2) > FWB(Z) P-values 0 (0) and its T-Statistic value >1.96 (8.137) Hypothesis **Accepted**

H3. FB (Y) > FWB (Z) P-Values <0.5 (0) and T-sStatistical Values >1.96 (9.385) Hypothesis **Accepted**

H4. PF (X2) > FB (Y) P-values <0.5 (0) and T-Statistic values >1.96 (9.429) Hypothesis **Accepted**

H5. PF(X2) > FWB (Z) P-values <0.5 (0) and T-Statistic values >1.96 (4.391) Hypothesis **Accepted**

H6. FL(X1) x FB (X2) > FWB (Z) P-Values <0.5 (0.057) and T-Statistical Values >1.96 (1.904) Hypothesis **Rejected**.

H7. PF (X1) x FB(Y) > FWB (Z) P-Values <0.5 (0.033) and T-Statistical Values >1.96 (2.136) Hypothesis **Accepted**.

Specific Indirect

Hipotesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Keterangan
H6 FL (X1) x FB (Y) > FWB (Z)	0,379	0,378	0,043	8,751	0,00	Diterima
H7 FP (X2) x FB (Y) > FWB (Z)	0,194	0,195	0,034	5,735	0,00	Diterima

The value on *the specific indirect* must be <0 which means the results of the study are acceptable. In this study, the researcher wanted to find out whether *financial behavior* indirectly mediates *financial literacy* and the use of fintech on *financial well-being*.

This study shows that *financial literacy* and the use of *fintech* affect *financial behavior* which is measured as an indirect mediating variable for *financial well-being*. This can be illustrated in the following SEM-PLS calculation results, namely:

H.6 FL (X1) \times FB (Y) > FWB (Z) With a P-Values < 0.5 (0.00) and a T-Statistic value of >1.96 (8.751) which means that the hypothesis is accepted.

H.7 PF (X2) \times FB (Y) > FWB (Z) With P-Values < 0.5 (0) and T-Statistic value >1.96 (5.735) which means that the hypothesis is accepted.

Conclusion

The conclusion of this study is to measure how the variable *Financial Literacy*, the use of *Fintech*, affects *financial well-being* with *Financial Behavior* as a mediating variable. In the hypothesis test, *financial literacy* has a negative value and has no effect on *financial well-being* by being mediated by *financial behavior*. *Financial behavior* as a mediator may not be enough to bridge the relationship between *financial literacy* and *financial well-being*, there are other factors that the authors do not examine such as those that have more influence than *financial literacy* such as self-control, *financial goal* that everyone has, or other external conditions may play a bigger role than *financial behavior*. However, from the results of measuring variables through *specific indirect*, it is said that the results indicate that *financial literacy* affects *financial well-being* indirectly through *financial behavior* as a mediator. In other words, increasing financial literacy will result in better *financial well-being* only if the literacy can be translated into positive *financial behavior*, such as good financial management, recording expenditures and income, saving habits or wise financial decision-making. From the results of the study, the author hopes that knowledge about finance or financial literacy can be used as an addition to the learning curriculum, especially for the early age entering the emerging adulthood period, besides that the government is expected to conduct research on products that aim to prosper the people by measuring all types of risks that are expected not to harm the community in the future. The wise use of *fintech* can actually make it easier for people to manage their finances, but due to a lack of in-depth knowledge and only relying on convenience, *fintech* becomes an application that violates its purpose of use. Therefore, the author hopes that *fintech* services and other financial institutions can maintain their products so that there is no *miscellaneous*, have a clear *after-sales* and can maintain one's financial ability so that there is no *over-finance* that will have a bad impact on their *financial well-being* in the future. The author also gives advice to *emerging adulthoods* to be able to use *fintech* well, learn well the products of financial institutions used, practice the wise use of finance and form a community that can remind each other how to use finance wisely so that they can form good *financial behavior*.

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